# **GeometryQuiz08: Circles and Arcs**

**Date:** 2023 **Author:** Mathematics Department **Question 1** Calculate the length of an arc with a radius of 12 cm and a central angle of 45°. **Question 2** If a circle has a circumference of 31.4 cm, find its diameter. **Question 3** In a circle with radius 10 cm, find the area of a sector with a central angle of 90°. **Question 4** Determine the radius of a circle if an arc with a 60° central angle is 8 cm long. **Question 5** Find the length of the arc of a circle with a radius of 7 cm and a central angle of 30°. **Question 6** Calculate the area of a circle with a radius of 15 cm.

#### **Question 7**

A circle has an area of 154 cm<sup>2</sup>. Find the radius of the circle.

## **Question 8**

What is the measure of a central angle in a circle if an arc of length 10 cm subtends it in a circle of radius 5 cm?

## **Question 9**

Determine the circumference of a circle with diameter 14 cm.

#### **Question 10**

Find the radius of a circle if its circumference is 50.24 cm.